(11)Publication number : **10-048128**

(43)Date of publication of application : **20.02.1998**

(51)Int.Cl. **G01N 21/35**

(21)Application number : **09-122154**

(22)Date of filing : **13.05.1997**

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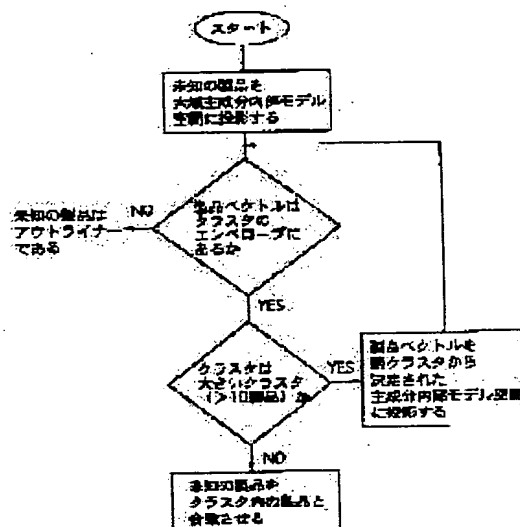**MONFRE STEPHEN L**

(30)Priority

Priority number : **96 645104**   Priority date : **13.05.1996**   Priority country : **US**

(54) **IDENTIFICATION METHOD OF SUBSTANCE BY NIR SPECTRAL METHOD**

(57)Abstract:

PROBLEM TO BE SOLVED: To bring an unknown substance into coincidence with one of a large number of known substances by using infrared analysis to identify the unknown substance as the same substance as that having come to coincidence.

SOLUTION: In a method identifying an unknown product, the absorbancy spectrum of the unknown product to be identified is measured and the score vector of the unknown product is determined from the spectrum of the unknown product projected on the inner model space of the main component of a cluster. It is judged whether the score vector of the unknown product belongs to one of envelopes and, when the score vector belongs, it is judged whether the score vector of the unknown product belongs to either one of sub-clusters divided from the cluster. This process is repeated until it is judged whether the score vector of the unknown product is present within a further finely undivided cluster. By this method, searching is limited to a several kinds of products.

LEGAL STATUS

[Date of request for examination]   20.02.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]